

**READ AND KEEP THIS FOR FUTURE REFERENCE**



## **CARE AND OPERATING INSTRUCTIONS**

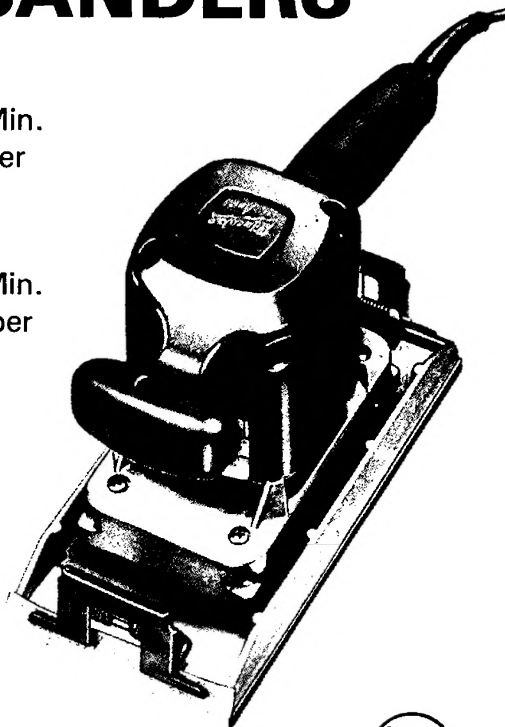
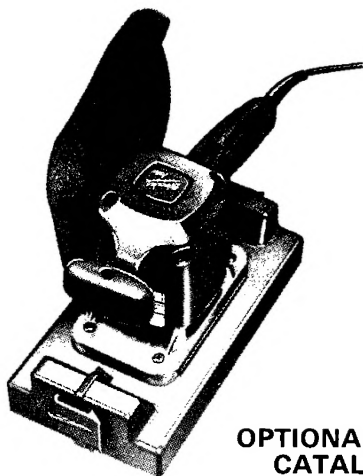
# **HEAVY-DUTY ORBITAL SANDERS**

### **CATALOG NO. 6012**

120 Volts      12,000 Orbits/Min.  
Uses 3-2/3" × 9" Sandpaper

### **CATALOG NO. 6014**

120 Volts      12,000 Orbits/Min.  
Uses 4-1/2" × 11" Sandpaper



**OPTIONAL DUST PICK-UP KIT  
CATALOG NO. 48-09-0300**

For Use with No. 6014 Orbital Sander

**IMPORTANT**—Before placing tool in operation, record the following information from nameplate.

Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_ Date of Purchase \_\_\_\_\_

**MILWAUKEE ELECTRIC TOOL CORPORATION**

13135 West Lisbon Road • Brookfield, Wisconsin 53005

THIS SYMBOL ...



... IS YOUR ASSURANCE

1. That every tool manufactured by MILWAUKEE is produced in accordance with applicable Standards for Safety of Underwriters' Laboratories and American National Standards (ANSI).
2. That compliance with applicable safety standards is assured by independent inspection and testing conducted by Underwriters' Laboratories (UL).
3. That every motorized tool manufactured by MILWAUKEE is fully inspected.
4. That every tool has with it adequate instructions and a list of safety rules for the protection of the user.

**WARNING:** When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following items. Read all instructions and save them for future reference.

### SAFETY INSTRUCTIONS FOR ALL POWER TOOLS

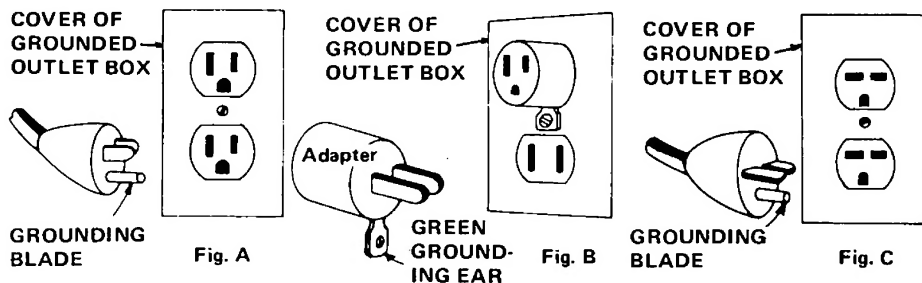
1. **KNOW YOUR POWER TOOL.** Read owner's manual carefully. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.
2. **GROUND ALL TOOLS—UNLESS DOUBLE-INSULATED.** If the tool is equipped with a three prong plug, it should be plugged into a three hole electrical receptacle. If an adapter is used to accommodate a two hole receptacle, the grounding ear must be attached to a known ground. Never remove the third prong.
3. **KEEP GUARDS IN PLACE** and in working order.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **AVOID DANGEROUS ENVIRONMENTS.** Don't expose power tools to rain or use in damp or wet locations. Do not use tool in presence of flammable liquids or gases. Keep the work area well lit.
6. **KEEP CHILDREN AWAY.** All visitors should be kept a safe distance from the work area. Do not let visitors contact tool or extension cords.
7. **STORE IDLE TOOLS.** When not in use, tools should be stored in a dry, high or locked-up place—out of reach of children.
8. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE RIGHT TOOL.** Don't force a small tool or attachment to do the job of a heavy-duty tool. Don't use a tool for a purpose it was not designed for, such as using a circular saw for cutting tree limbs or logs.
10. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and insulated non-skid footwear are recommended when working outdoors. Wear protective covering to contain long hair.
11. **USE SAFETY GLASSES** at all times. Also, use a face or dust mask if cutting operation is dusty.
12. **DON'T ABUSE CORD.** Never carry the tool by its cord or yank it to disconnect from the receptacle. Keep cord from heat, oil and sharp edges.
13. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
14. **DON'T OVERREACH.** Keep proper footing and balance at all times.
15. **DISCONNECT TOOLS.** When not in use; before servicing; when changing accessories such as blades, bits, cutters, etc.
16. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerator enclosures.
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

18. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean at all times for best and safest performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean and free of oil or grease. Inspect switches, tool cords and extension cords periodically and have them repaired or replaced by an authorized service facility if damaged. Check moving parts for alignment and binding as well as for breakage and improper mounting. Damaged parts should be repaired or replaced by an authorized service facility unless otherwise indicated in this instruction book. **CAUTION:** Do not use carbon tetrachloride.
19. **AVOID ACCIDENTAL STARTING.** Don't carry a plugged-in tool with your finger on the switch. Be sure the switch is turned off before plugging in a tool. Do not use a tool if the switch does not turn it on or off.
20. **WEAR EAR PROTECTORS** when using for extended periods.
21. **ACCESSORIES.** The use of any accessories other than what is listed or recommended for this particular tool may be hazardous.
22. **KEEP HANDS AWAY FROM CUTTING EDGES AND ALL MOVING PARTS.**
23. **USE INSULATED SURFACES.** A double-insulated or grounded tool may be made live if the blade or bit comes in contact with live wiring in a wall, floor, ceiling, etc. Always check the work area for live wires and hold the tool by the insulated surfaces when making "blind" or plunge cuts.
24. **GRINDING WHEELS.** Use only grinding wheels with "Safe Speed" at least as high as the no load RPM" marked on the nameplate.
25. **USE SIDE HANDLES** when supplied with tool for control and safety.
26. **STAY ALERT.** Watch what you are doing and use common sense. Do not operate tool when you are tired.

## GROUNDING INSTRUCTIONS

This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with an approved three-conductor cord and three-prong grounding-type plug to fit the proper grounding-type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal. If your unit is for use on less than 150 volts, it has a plug that looks like Fig. "A". If it is for use on 150 to 250 volts, it has a plug that looks like Fig. "C".

An adapter, Fig. "B" is available for connecting Fig. "A" plugs to two-prong receptacles. The green grounding ear extending from the adapter must be connected to a permanent ground such as to properly grounded outlet box. No adapter is available for Fig. "C" plugs.



**NOTE: RECEPTACLE MUST BE GROUNDED FOR SAFE USE OF ADAPTER; IF IN DOUBT CALL A QUALIFIED ELECTRICIAN AND HAVE THE RECEPTACLE CHECKED FOR GROUND.**

## EXTENSION CORD CHART

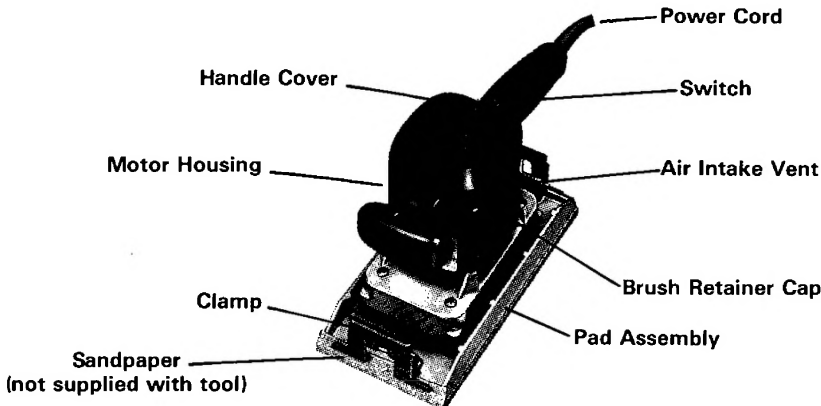
When an extension cord is used, it should be a 3 wire cord to permit proper grounding of the tool. As the distance from the supply outlet increases, heavier gauge extensions are required. The use of extension cords of inadequate size wire causes a serious drop in voltage, loss of power and possible motor damage. This table is based on limiting line voltage drop to 5 volts at 150% of rated amperes.

Ampere rating (on Nameplate)	0- 2.00	2.10- 3.4	3.5- 5.00	5.10- 7.0	7.10- 12.0	12.1- 16.0	16.1- 20.0	
Ext. Cable Length	Wire Size							
25 Ft.	18	18	18	18	16	14	12	Not normally available as flexible extension cord.
50 Ft.	18	18	18	16	14	12	10	
75 Ft.	18	18	16	14	12	10	8	
100 Ft.	18	16	14	12	10	8	8	
150 Ft.	16	14	12	12	8	8	6	
200 Ft.	16	14	12	10	8	6	4	
300 Ft.	14	12	10	8	6	4	4	
400 Ft.	12	10	8	6	4	4	2	
500 Ft.	12	10	8	6	4	2	2	
600 Ft.	10	8	6	4	2	2	1	
800 Ft.	10	8	6	4	2	1	0	
1000 Ft.	8	6	4	2	1	0	0	

IF USING AN EXTENSION CORD OUTDOORS, BE SURE IT IS MARKED WITH THE SUFFIX "W-A" ("W" IN CANADA) TO INDICATE THAT IT IS ACCEPTABLE FOR OUTDOOR USE.

**Read All Instructions And Save Them For Future Reference**

## MILWAUKEE ORBITAL SANDERS



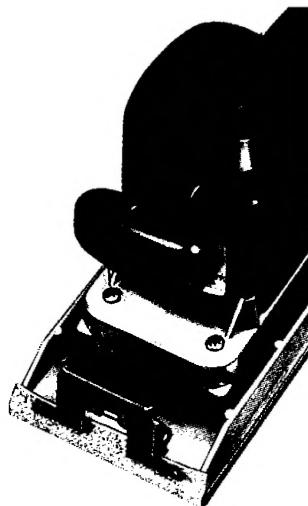
**CAUTION: ALWAYS TURN SWITCH OFF AND UNPLUG TOOL BEFORE ATTACHING OR REMOVING SANDPAPER OR DUST PICK-UP.**

## **SANDPAPER**

The sandpaper recommended for power sanding is an aluminum-oxide, open coat paper. This type of paper is recommended since it will not clog as easily as closed coat papers and will wear longer. It can be used for sanding all metals, hard and medium woods, plastics and similar materials. A garnet type sandpaper is acceptable for use with the MILWAUKEE Orbital Sander but the life of this paper is extremely short. Flint type papers are not recommended.

## **ATTACHING SANDPAPER**

The sandpaper size for the No. 6012 MILWAUKEE Orbital Sander is 3-2/3" x 9" or one third of a standard 9" x 11" sheet of sandpaper. The No. 6014 Orbital Sander uses a 4-1/2" x 11" or one half of a standard 9" x 11" sheet of sandpaper. Score the back of the paper with a knife before attempting to break or tear the 9" x 11" sheet. The paper will tear neatly when the abrasive sides are folded together. To attach paper to a sanding pad, roll the ends of the sheet so that the last inch of each side curls up. Insert the curled end in the spring clamp and draw the paper tightly over the pad. Be sure the paper is centered. Insert the paper into the opposite spring clamp. Loose or poorly centered paper does a poor sanding job and causes excessive paper wear.



## **OPERATION**

Turn the switch to the on position before applying the sander to the workpiece. This prevents rough action which results when starting under load. Use long slow strokes. For the first stage of finish sanding select a coarser grit paper if the workpiece is rough. Follow with finer grit paper until the desired finish is obtained. Apply only slight pressure when guiding the tool. Let the weight of the sander do the work. Excess sanding pressure can result in faster material removal but may cause scratches and other irregularities which are very difficult to remove with fine grit sandpaper.

The MILWAUKEE Electric Tool Corporation assumes no responsibility for any damage or accidents resulting from the misuse of this tool, its misapplication or the nonadherence to precautionary safety measures.

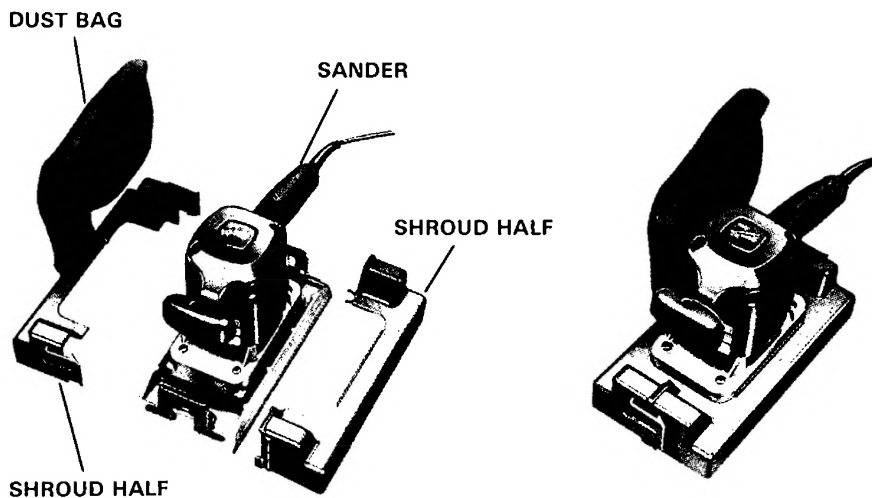
## **INSTALLATION INSTRUCTIONS**

### **DUST PICK-UP KIT**

**CATALOG NO. 48-09-0300**

**For MILWAUKEE Orbital Sander Model 6014**

**CAUTION: ALWAYS TURN SWITCH OFF AND UNPLUG TOOL BEFORE ATTACHING OR REMOVING SANDPAPER OR DUST PICK-UP.**



Before attaching the dust pick-up, unplug the tool and attach sandpaper to the pad. For simplest installation, rest the tool on its pad with the power cord on your left side. Slide the half of the shroud without the dust bag over the base of the sander on the side opposite you. Slide the half of the shroud with the dust bag over the base of the sander on the side nearest you and squeeze both halves together until they lock at both ends.

To remove the dust pick-up, unplug the tool and rest the sander on its pad with the power cord on your left side. Release the tabs at each end and slide each shroud half off.

To empty the dust bag, remove the shroud from the tool, open the zippered edge of the bag and gently shake the dust into a container. **DO NOT REMOVE THE DUST BAG FROM THE SHROUD.**

## MAINTENANCE

All servicing other than what is recommended in this instruction manual must be performed by a MILWAUKEE Service Center or Authorized Service Station.

## LUBRICATION

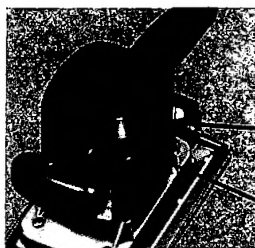
The MILWAUKEE Orbital Sander is equipped with grease sealed bearings and requires no further lubrication.

## BRUSHES AND COMMUTATOR

To inspect the brushes, unplug the tool and unscrew the brush retainer caps located in the motor housing. Remove the retaining springs and the brushes. Replace the brushes when they are worn down to 1/4". Always replace the brushes in sets.

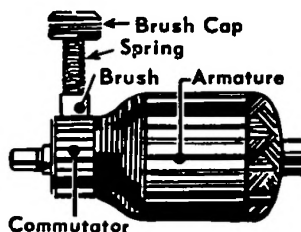
While the brushes are removed, the commutator can be inspected by looking through the brush tube as well as through the side air intake vents. If the commutator is rough or dirty, send the complete tool to a MILWAUKEE Service Center or Authorized Service Station for undercutting and dressing of the commutator.

When inserting brushes, the curved surface of the brush carbons should be positioned so they seat properly on the surface of the commutator. Replace the springs and the brush retainer caps being careful not to overtorque them.



Air Intake Vent

Brush Retainer Cap



## ACCESSORIES

**DUST PICK-UP KIT (For Sander No. 6014)**  
**Catalog No. 48-09-0300**

(See page 6 for installation instructions)

**STEEL CARRYING CASE**  
**Catalog No. 48-55-0740**

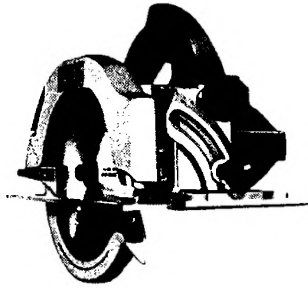
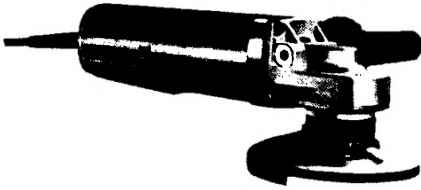
### USE ONLY IDENTICAL REPLACEMENT PARTS

Parts List Available On Request.

When ordering, include Catalog No. and Serial No. of Tool.

Write: MILWAUKEE ELECTRIC TOOL CORP. SERVICE DEPT.  
 13135 W. Lisbon Rd. Brookfield, WI. 53005

## HEAVY-DUTY TOOLS FOR CONTRACTORS AND INDUSTRY

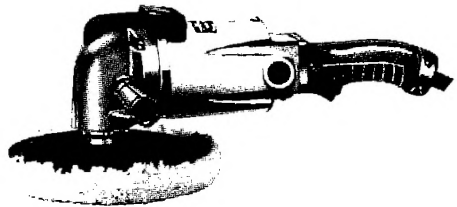
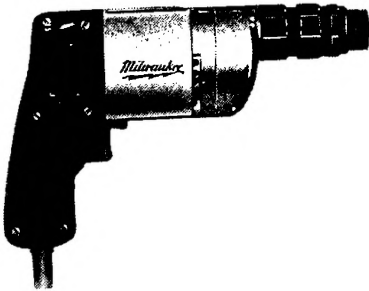


**Milwaukee**  
Amstar

### WARRANTY

Every MILWAUKEE Tool is thoroughly inspected and tested before leaving the factory. Should any trouble develop, return the complete tool prepaid to the Factory, Branch or nearest Authorized Service Station. If inspection shows the trouble is caused by defective workmanship or material, all repairs will be made without charge and the tool will be returned transportation prepaid.

This warranty does not apply where: (1) repairs or attempted repairs have been made by persons other than Factory, Branch or Authorized Service Station personnel; (2) repairs are required because of normal wear; (3) the tool has been misused or involved in an accident; (4) misuse is evident such as caused by overloading the tool beyond its rated capacity; (5) the tool has been used after partial failure or (6) the tool has been used with an improper accessory. No other warranty written or verbal, is authorized.



## MILWAUKEE ELECTRIC TOOL CORPORATION

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